10/073,270

OFFICIAL

Amendments to the Specification:

Please amend the paragraph beginning at page 19, line 4, as follows:

Ni-Fe alloy shows an excellent soft magnetic property among metallic soft magnetic materials, and is preferably used in the present invention. In particular, Ni-Fe alloy of Fe being 15 to 55 wt% is preferably used in the present invention. Further, Ni-Fe alloy of Fe being 17 to 23 wt%, which can especially reduce a crystal magnetism aniso tropic anisotropic constant K, is more desirably used. A Fe content in Ni-Fe alloy can be adjusted by adjusting an ion ratio of Ni and Fe in a plating solution of the electroplating. Depending on this adjusting method, if variously changing an alloying composition, it is possible to determine the crystal magnetism anisotropic constant K at an optional value. Therefore, the frequency of the electromagnetic wave targeting at the absorption can be also changed to a desired value.

Please amend the paragraph beginning at page 20, line 5 as follows:

The thickness of the magnetic powder is desirably below a skin depth depending on electric conductivity, permeability and frequency. In view of a space, the thickness above the skin depth is no not useful for absorbing the electromagnetic wave. The skin depth is in proportion to $\rho/(\mu \cdot f)$ (in the formula ρ is electric resistivity, μ is permeability and f is frequency). Referred to the formula (3), when f is equal to 1[GHz], the thickness of "skin depth" of the present invention become becomes $1 \mu m$ ($\rho = 1 \times 10^{-7}$ [Ωm], $\mu_r = 30$).

Please amend the paragraph beginning at page 24, line 25, as follows:

Then, as shown in Fig. 1D, the magnetic material of Ni-Fe alloy is precipitated selectively in the electrode range 10 [[...]] of the plating mold M, and fine films 40 [[...]] are many formed in response to the shape of the electrode range 10.

Please amend the paragraph beginning at page 25, line 9, as follows:

10/073,270

OFFICIAL

As in Fig. 1F, the films 40 [[...]] are rubbed with, e.g., a rotary brush (not shown), or are removed by applying a rubber roller from the surface of the metal substrate 1. Thus, many and fine magnetic powders 4 [[...]] are produced.

Please amend the paragraph beginning at page 29, line 25, as follows:

Moreover, in a vapor growth process as a vacuum evaporation and a spattering sputtering process, if speeding up an evaporation or cooling a base of evaporating the thin film originating the magnetic powder, it may be considered to refine crystal grains to some extent. Therefore, if a technique is employed for adjusting the crystal grains to be within the above mentioned ranges, similar effects can be expected.

Please amend the paragraph beginning at page 30, line 9, as follows:

All insulative resins functioning as the bonding agent are usable as resins, which is included in the electro-magnetic electromagnetic wave absorbing material together with any of the above mentioned magnetic powders. Taking into consideration the function as the bonding agent particularly, the insularity and the formability forming the electromagnetic wave absorbing materials into various shapes in combination, for example, there are preferably enumerated, for example, stylene styrene based resins such as acrylonitrile stylene acrylonitrile-styrene butadiene copolymer (ABS) and aerylenitrile-stylene acrylonitrile-styrene copolymer, polyester based resins such as polyethylene terephthalate resin, olefin based resins such as polycarbonate resin, polyethylene, polypropylene and chlorinated polyethylene, cellulose based resin, polychloride vinyl based resin, and thermoplastic resins such as polyvinyl butyral resin.

Please amend the paragraph beginning at page 33, line 23, as follows:

10/073,270

OFFICIAL

The electroplating was performed under the current density 10A/dm², and the Ni-Fe alloy film was formed as the film 40 of magnetic material on the surface of the electrode range 10 [[...]] of the plating mold M.

Please amend the paragraph beginning at page 34, line 2, as follows:

Subsequently, the plating mold M was taken out from the plating vessel, washed with acetone to remove the resist layer 2, and thereby to form the film 40 on the electrode range 10 [[...]]. Thus the film 40 was peeled so as to recover Ni-Fe alloy powder as the magnetic powder 4.

Please amend the paragraph beginning at page 34, line 7, as follows:

The recovered Ni-Fe alloy powders were discs of 20 µm diameter and 0.5 µm thickness corresponding to the plane shape of the electrode range 10 [[...]] and were regular with respect to the plane shape and the thickness. The alloying composition had Fe content being 20 wt%, S content being 0.02 wt%, and C being 0.01 wt%.

Please amend the paragraph beginning at page 35, line 12, as follows:

Targeting at Ni-Fe alloy of Fe content being 20 wt%, the Ni-Fe alloy film of 0.5 μm was formed on the substrate. Then, the resist layer was formed on this film surface, many circles of 20 μm diameter were subjected to pattering sputtering to form mask patterns mask patterns, and unnecessary parts were removed by etching from Ni-Fe alloy film. The film is separated from the substrate, and the magnetic powders of 20 μm diameter and 0.5 μm thickness were produced, and the products were uniform in diameter and thickness.